



STATE OF DELAWARE  
EXECUTIVE DEPARTMENT  
OFFICE OF MANAGEMENT AND BUDGET  
Budget Development, Planning and Administration  
State Planning Coordination

January 15, 2009

Mr. Jeff Clark  
Land Tech, LLC  
18 Atlantic Avenue, Ste. 202  
Ocean View, De 19970

RE: PLUS review –2008-12-06; Northview at Wild Pine Country Club

Dear Mr. Clark:

Thank you for meeting with State agency planners on December 17, 2008 to discuss the proposed plans for the Northview at Wild Pine Country Club project to be located west of Delmar, North of Route 54, and East of Route 504 in Sussex County.

According to the information received, you are seeking approval for a residential planned community for 308 residential units and a golf course on 188.73 acres.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. The developers will also need to comply with any Federal, State and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.

This office has received the following comments from State agencies:

**Office of State Planning Coordination – Contact: Bryan Hall 739-3090**

This project as defined is within a Level 4 area according to the 2004 Strategies for State Policies and Spending. We recognize that parcel is adjacent to and will be included within the proposed project formerly known as Blackwater Creek that is planned west of Delmar. This office also recognizes that as part of the recently certified 2008 Sussex County Comprehensive Land Use Plan that this area west of Delmar which includes the

Blackwater Creek parcels into a sub-regional planning area. Further, it is our understanding that the Town of Delmar intends consider the inclusion of these areas within and around the former Blackwater Creek parcels into their future annexation area; however, the 2009 Delmar plan has not been reviewed by this office for certification nor has it been adopted by Council.

Until Delmar officially includes this parcel into the future annexation area or Sussex County sub-regional plan for this area is complete and adopted by the County, The State will continue to recognize this parcel as being in a level 4 area and will object to the development of this parcel at this time; however State agencies have provided technical comments. This office strongly urges the developer to work closely with the Town and County to aid in the development of the future plans necessary to support the proposed development within this area.

**State Historic Preservation Office (SHPO) – Contact: Terrence Burns 739-5685**

No comments received

**Department of Transportation – Contact: Bill Brockenbrough 760-2109**

Blackwater Creek, Inc. seeks to develop 160 single-family detached houses and 148 single-family semi-detached houses on a 188.73-acre parcel (Tax Parcel 5-32-12.00-27.00). The land is located west of Delmar, and more specifically northeast of the intersection of Delaware Route 54 and Providence Church Road (Sussex Road 504). Access would be through another phase of the Wild Pine Country Club development (formerly known as Blackwater Creek). The land is zoned AR and GR, and an RPC overlay zoning is being sought.

The State and County are presently cooperating in a subregional planning effort for an area west of Delmar. That area includes the rest of Wild Pine Country Club, albeit not the subject parcel. Based on the discussion at the PLUS meeting, DelDOT is treating this project as though it were in a Level 3 Area and providing the following comments:

- 1) A traffic impact study was completed for the Wild Pine Country Club development and we sent comments to Sussex County regarding it in 2005. DelDOT is presently in discussion with the developer's representatives regarding the possible changes to the needed road improvements and phasing of the development to the completion of those improvements. DelDOT anticipates completing those discussions in early 2009.
- 2) DelDOT recommends that the developer consider providing stub streets for future connections to the Willink (5-32-12.00-3.10), Nichols (5-32-12.00-3.05), Patilla (5-32-12.00-6.00), Neudeck (5-32-12.00-28.00), and Culver (5-32-19.00-6.00). Our mapping shows all or most of the area of these parcels to be wetlands, but it also shows the subject parcel as being wet. Therefore if the subject parcel can be

developed as proposed it may be possible to develop those lands as well. Further investigation will be needed to determine whether and where stub streets might be appropriate.

- 3) DelDOT recommends that further attention be given to the design of the proposed circular traffic feature. As a roundabout, it lacks splitter islands, the circular roadway appears to be too wide and the diameter is too large. Because of the low speeds and relatively low volumes involved, circular roadways that are not roundabouts can function adequately with stop signs on all approaches. However, careful attention to signing and striping is necessary in such situations.
- 4) The developer's site and traffic engineers should maintain contact with our Subdivision Manager for western Sussex County, Mr. Derek Sapp, as they proceed with development of plans for Wild Pine Country Club. Mr. Sapp may be reached at (302) 760-4803.

**The Department of Natural Resources and Environmental Control – Contact: Kevin Coyle 739-9071**

Besides its location in Investment Level 4, DNREC's concerns about this project include the very poor quality soils in 85 to 90% of the project area, in combination with an apparent underestimation of impervious cover, and the likelihood of flooding and drainage problems as the development is built out.

Approval of this project appears to run counter to Chapter 99, Section 16A of the Sussex County Code which, paraphrased, states that lands compromised by improper drainage or flooding potential pose significant threats to the safety and general welfare of future residents and, therefore, shall not be developed.

**Investment Level 4 Policy Statement**

This project is proposed for an Investment Level 4 area as defined by the *Strategies for State Policies and Spending* and is also located outside of a designated growth area in the relevant municipal and County certified comprehensive plans. According to the *Strategies*, this project is inappropriate in this location. In Investment Level 4 areas, the State's investments and policies, from DNREC's perspective, should retain the rural landscape and preserve open spaces and farmlands. Open space investments should emphasize the protection of critical natural habitat and wildlife to support a diversity of species, and the protection of present and future water supplies. Open space investments should also provide for recreational activities, while helping to define growth areas. Additional State investments in water and wastewater systems should be limited to existing or imminent public health, safety or environmental risks only, with little provision for additional capacity to accommodate further development.

With continued development in Investment Level 4 areas, the State will have a difficult, if not impossible, time attaining water quality (e.g., TMDLs) and air quality (e.g., non-

attainment areas for ozone and fine particulates) goals. Present and future investments in green infrastructure, as defined in Governor Minner’s Executive Order No. 61, will be threatened. DNREC strongly supports new development in and around existing towns and municipalities and in areas designated as growth zones in certified Comprehensive Plans. We encourage the use of transfer of development rights where this growth management tool is available.

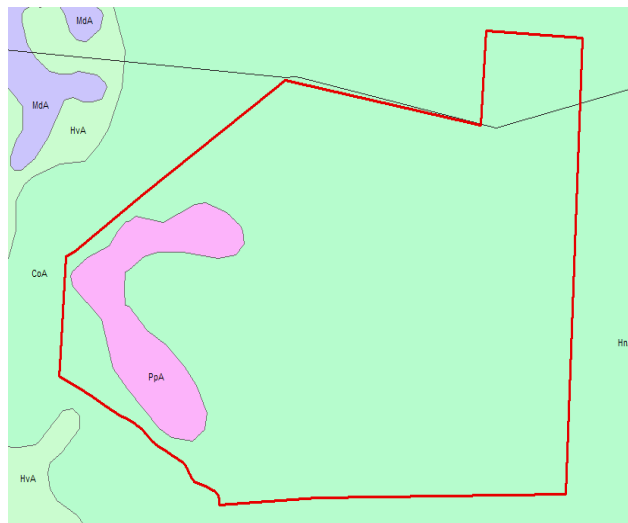
This particular development certainly compromises the integrity of the State Strategies and the preservation goals inherent in many of DNREC’s programs. In addition to the concerns mentioned above, we are also concerned with potential impacts to wetlands, the loss/fragmentation of forest (15 out of 75 acres or 20%), and tax ditch rights-of-way. While mitigating measures such as conservation design, central wastewater systems instead of individual on-site septic systems, and other best management practices may help mitigate impacts from this project, not doing the project at all is the best avenue for avoiding negative impacts. As such, this project will receive no financial, technical or other support of any kind from DNREC. Any required permits or other authorizations for this project shall be considered in light of the project’s conflict with our State growth strategies.

## Soils

According to the NRCS soil survey update, Pepperbox (PpA) and Corsica (CoA) were mapped in the immediate vicinity of the proposed construction (See figure 1). Pepperbox is a moderately well-drained soil of low-lying uplands that has moderate limitations for development. Corsica is a very poorly-drained wetland associated (hydric) soil that has severe limitations for development and should be avoided (i.e., considered unsuitable for development).

Figure 1: NRCS soil survey update mapping in the immediate vicinity of the proposed Wild Pine Country Club

A significant portion of this parcel contains very poorly-drained wetland associated (hydric) Corsica soils (approximately 85-90% of the project area) which have a seasonal high water table occurring at or near the soil surface (within one-foot of soil surface or less). Building in such soils is likely to leave prospective residents of this and adjoining properties susceptible to future flooding problems from groundwater-driven surface water ponding, especially during extended periods of high-intensity rainfall events such as tropical storms/hurricanes or “nor’easters.” This is in addition to increased flooding probabilities from surface water runoff emanating from future created or constructed forms of



structural imperviousness (e.g., rooftops, roads, sidewalks, and stormwater management structures).

Based on the Chapter 99, Section 16A of the Sussex County Code (paraphrased), lands compromised by improper drainage or flooding potential pose significant threats to the safety and general welfare of future residents and, therefore, shall not be developed. Soils mapped as Corsica fit the criterion for improper drainage or high flooding potential, and should be avoided. The Watershed Assessment Section strongly believes that permitting development on such soils would be inconsistent with above-mentioned regulatory guidelines in the Sussex County Code, and will increase the potential for future flooding impacts.

## Wetlands

Based on the Statewide Wetlands Mapping Project (SWMP) mapping, palustrine scrub-shrub (PSS4A) and palustrine emergent (PEM1A) were mapped throughout the entire parcel land area. (See figure 2).

Figure 2: SWMP mapping in the immediate vicinity of the proposed Wild Pine Country Club

The applicant is responsible for determining whether any State-regulated wetlands (regulated pursuant to 7 Del.C. Chapter 66 and the Wetlands Regulations) are present on the property. This determination can only be made by contacting the Division of Water Resources' Wetlands and Subaqueous Lands Section at 302/739-9943 and consulting the State's official wetland regulatory maps, which depict the extent of State jurisdiction. The area regulated by State law may be very different from the area under federal authority. No activity may take place in State-regulated wetlands without a permit from DNREC's Wetlands Section.



In addition, most perennial streams and ditches and many intermittent streams and ditches are regulated pursuant to the Subaqueous Lands Act (7 Del.C. Chapter 72) and the Regulations Governing the Use of Subaqueous Lands. Ponds which are connected to other waters are also regulated, while isolated ponds are not. Any work in regulated streams, ditches or ponds requires a permit from the Wetlands and Subaqueous Lands Section. An on-site jurisdictional determination is recommended in order to determine whether any regulated watercourses exist on the property. **Please Note:** Aerial

photography suggests that ditching is extensive throughout much of this parcel. Since ditches are often regulated by the State as jurisdictional wetlands, it is important that the applicant have their extent verified. Please contact the Wetlands and Subaqueous Lands Section at 302/739-9943 to schedule an on-site visit. Such appointments can usually be scheduled within 2 to 3 weeks.

The applicant should also be reminded that they must avoid construction/filling activities in those areas containing wetlands or wetland associated hydric soils as they are subject to regulatory jurisdiction under Federal 404 provisions of the Clean Water Act. A site-specific field wetlands delineation using the methodology described in the 1987 United States Army Corps of Engineers (USACE, or “the Corps”) manual is the acceptable basis for making a jurisdictional wetland determination for nontidal wetlands in Delaware. The applicant is forewarned that the Corps views the use of the National Wetlands Inventory (NWI) mapping or the Statewide Wetlands Mapping Project (SWMP) mapping as an unacceptable substitute for making such delineations.

To ensure compliance with said Corps regulatory requirements, it is strongly recommended that a field wetlands delineation using the above-referenced methodology be performed on this parcel before commencing any construction activities. It is further recommended that the Corps be given the opportunity to officially approve the completed delineation. In circumstances where the applicant or applicant’s consultant delineates what they believe are nonjurisdictional isolated (SWANCC) wetlands, the Corps must be contacted to evaluate and assess the jurisdictional validity of such a delineation. The final jurisdictional authority for making isolated wetlands determinations rests with the Corps; they can be reached by phone at 736-9763.

Based on a review of existing buffer research by Castelle et al. (Castelle, A. J., A. W. Johnson and C. Conolly. 1994. *Wetland and Stream Buffer Requirements – A Review*. J. Environ. Qual. 23: 878-882), an adequately-sized buffer that effectively protects wetlands and streams, in most circumstances, is about 100 feet in width. In recognition of this research and the need to protect water quality, the Watershed Assessment Section recommends that the applicant maintain/establish a minimum 100-foot upland buffer (planted in native vegetation) from all water bodies (including ditches) and wetlands.

### **Impervious Cover**

The applicant estimates this project’s post-construction surface imperviousness to reach only 17 percent. However, given the scope and density of this project (i.e., as viewed from the conceptual project layout) this estimate appears to be a significant underestimate. When calculating surface imperviousness it is important to include all forms of constructed surface imperviousness, such as: all paved surfaces including rooftops, sidewalks, driveways, and roads; open-water stormwater management structures swimming pools and ponds; and all area(s) containing a community wastewater disposal system; this will ensure a realistic assessment of this project’s likely post-construction environmental impacts. Surface imperviousness, therefore, should be recalculated to reflect all of the above-mentioned forms of surface imperviousness in

the finalized calculation. Failure to do so will significantly understate this project's true environmental impacts. **Note:** wetlands should be excluded from the parcel's total open space area when calculating the parcel's total surface imperviousness.

Studies have shown a strong relationship between increases in impervious cover to decreases in a watershed's overall water quality. It is strongly recommended that the applicant implement best management practices (BMPs) that reduce or mitigate some of this project's most likely adverse impacts. Reducing the amount of surface imperviousness through the use of pervious paving materials ("pervious pavers") in lieu of asphalt or concrete in conjunction with an increase in forest cover preservation or additional tree plantings are some examples of practical BMPs that could easily be implemented to help reduce surface imperviousness. Since this is a commercial project, it is strongly recommended that the applicant employ pervious paving materials, in lieu of conventional paving materials, for at least 50 percent of this project's total paved surface area.

### **ERES Waters**

This project is located adjacent to receiving waters of the greater Nanticoke watershed, of which Broad Creek is a part, and designated as having waters of Exceptional Recreational or Ecological Significance (ERES). ERES waters are recognized as special assets of the State, and shall be protected and/ or restored, to the maximum extent practicable, to their natural condition. Provisions in Section 5.6 of Delaware's "Surface Water Quality Standards" (as amended July 11, 2004), specify that all designated ERES waters and receiving tributaries develop a "pollution control strategy" to reduce non-point sources of pollutants through implementation of Best Management Practices (BMPs). Moreover, provisions defined in subsection 5.6.3.5 of same section, specially authorize the Department to mandate BMPs to meet standards for controlling the addition of pollutants and reducing them to the greatest degree achievable and, where practicable, implementation of a standard requiring no discharge of pollutants.

### **TMDLs**

Total Maximum Daily Loads (TMDLs) for nitrogen and phosphorus have been promulgated through regulation for the Broad Creek watershed. A TMDL is the maximum level of pollution allowed for a given pollutant below which a "water quality limited water body" can assimilate and still meet water quality standards to the extent necessary to support use goals such as, swimming, fishing, drinking water and shell fish harvesting. Although TMDLs are required by federal law, states are charged with developing and implementing standards to support these desired use goals. In the Broad Creek watershed, "target-rate-nutrient reductions" of 30 and 50 percent will be required for nitrogen and phosphorus, respectively. Additionally, "target-rate-reductions" of 2 percent will be required for bacteria.

### **TMDL Compliance through the PCS**

As indicated above, TMDLs for nitrogen and phosphorus have been proposed for the Broad Creek watershed. The TMDL calls for a 30 and 50 percent reduction in nitrogen and phosphorus from baseline conditions. The TMDL also calls for a 2 percent reduction in bacteria. A Pollution Control Strategy (PCS) will be used as a regulatory framework to ensure that these nutrient reduction targets are attained. The Department has developed an assessment tool to evaluate how your proposed development may reduce nutrients to meet the TMDL requirements. Additional nutrient reductions may be possible through the implementation of BMPs such as wider vegetated buffers along watercourses/wetlands, increasing the amount of passive, wooded open space, use of pervious paving materials to reduce surface imperviousness, connection to a central sewer (or performance-based community wastewater system), and deployment of green-technology stormwater management treatment technologies. Contact Lyle Jones at 302-739-9939 for more information on the assessment tool.

### **Water Supply**

The project information sheets state water will be provided to the project by Tidewater Utilities via a public water system. Our records indicate that the project is located within the public water service area granted to Tidewater Utilities under Certificate of Public Convenience and Necessity 06-CPCN-32.

Should dewatering points be needed during any phase of construction, a dewatering well construction permit must be obtained from the Water Supply Section prior to construction of the well points. In addition, a water allocation permit will be needed if the pumping rate will exceed 50,000 gallons per day at any time during operation.

All well permit applications must be prepared and signed by licensed water well contractors, and only licensed well drillers may construct the wells. Please factor in the necessary time for processing the well permit applications into the construction schedule. Dewatering well permit applications typically take approximately four weeks to process, which allows the necessary time for technical review and advertising.

Should you have any questions concerning these comments, please contact Rick Rios at 302-739-9944.

### **Sediment and Stormwater**

- A detailed sediment and stormwater plan will be required prior to any land disturbing activity taking place on the site. Contact the reviewing agency to schedule a pre-application meeting to discuss the sediment and erosion control and stormwater management components of the plan as soon as practicable. The site topography, soils mapping, pre- and post-development runoff, and proposed method(s) and location(s) of stormwater management should be brought to the meeting for discussion. The plan review and approval as well as construction



inspection will be coordinated through the Sussex Conservation District. Contact Jessica Watson at the Sussex Conservation District at (302) 856-2105 for details regarding submittal requirements and fees.

- Because of the parcel's location in an impaired watershed and the amount of impervious surface, green technology BMPs and low impact development practices should be considered a priority to reduce stormwater flow and to meet water quality goals.
- Include Brooks Cahall, of the Drainage Program, in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch. Show the location and width of tax ditch rights-of-way on the sediment and stormwater plans.

### **Drainage**

- This project is located within the Tussocky Tax Ditch. The placement of permanent obstructions within tax ditch rights-of-way is prohibited. Any change to the location of the tax ditch, existing tax ditch rights-of-way, or tax ditch watershed will require a change to the Tussocky Tax Ditch court order. The Drainage Program has reviewed the rights-of-way for this property and the results were sent to Jeff Clark of Land Tech, L.L.C. Please contact Brooks Cahall of the Drainage Program in Georgetown at (302) 855-1930 as soon as possible to discuss tax ditch rights-of-way for this project. It is recommended to incorporate the existing tax ditch and tax ditch rights-of-way as an amenity to the proposed project. Please include Brooks Cahall in the pre-application meeting with the Sussex Conservation District to discuss drainage, stormwater management, tax ditch maintenance, and the release of stormwater into the tax ditch.
- The Drainage Program requests that the engineer take precautions to ensure the project does not hinder any off site drainage upstream of the project or create any off site drainage problems downstream by the release of onsite storm water. The Drainage Program requests that the engineer check existing downstream ditches and pipes for function and blockages prior to the construction. Notify downstream landowners of the change in volume of water released on them.
- Have all drainage easements recorded on deeds and place restrictions on obstructions within the easements to ensure access for periodic maintenance or future re-construction. Future property owners may not be aware of a drainage easement on their property if the easement is only on the record plan. However, by recording the drainage easement on the deed, the second owner, and any subsequent owner of the property, will be fully aware of the drainage easement on their property.

### **Rare Species/Site Visit Request**

According to our database the following rare plant species occur on this parcel:

*Gratiola ramose* (branching hedge-hyssop), S1.1, G4G5

*Hypericum denticulatum* (coppery St. John's-wort), S2, G5

*Hypericum adpressum* (creeping St. John's-wort), S2, G2G3

*Demodium obtusum* (stiff tick-trefoil), S1, G4G5

State Rank: S1- extremely rare within the State (typically 5 or fewer occurrences); S2- very rare within the State (6 to 20 occurrences); B - Breeding; N - Nonbreeding; SX- Extirpated or presumed extirpated from the State. All historical locations and/or potential habitat have been surveyed; SH- Historically known, but not verified for an extended period (usually 15+ years); there are expectations that the species may be rediscovered; SE-Non-native in the State (introduced through human influence); not a part of the native flora or fauna.

Global Rank: G1 - imperiled globally because of extreme rarity (5 or fewer occurrences worldwide); G2 - imperiled globally because of great rarity (6 to 20 occurrences); G3 - either very rare and local throughout its range (21 to 100 occurrences) or found only locally in a restricted range; G4 - apparently secure globally but uncommon in parts of its range; G5 - secure on a global basis but may be uncommon locally; T\_ - variety or subspecies rank; Q – questionable taxonomy;

There is also a potential for a State-rare amphibian, *Psuedotriton montanus* (mud salamander) to occur on this parcel as it occurs in the vicinity and State wetland maps indicate forested wetlands within the project area. This rare, secretive amphibian occurs in forested wetlands, wet floodplains, wooded swamps, bogs, and small streams, but is difficult to find as it rarely spends time on the surface. It is believed that it takes 2-4 years for this species to reach maturity. The life history of this species has not been completely documented in Delaware, but it is believed that they breed in late summer or early fall.

#### *Recommendations:*

1. DNREC recommends that our program scientists be offered the opportunity to conduct a survey of the property to relocate the plant populations listed above and evaluate habitat for additional species of conservation concern. Recommendations resulting from this survey could aid the applicant in efforts to minimize rare species impacts. Data collected would also support our effort to map vegetative communities throughout the State. Please note that our scientists have decades of experience in comprehensive rare species survey methods. They have extensive knowledge of the flora and fauna of the State and are qualified in making rare species identifications. The survey will be conducted at no expense to the landowner.

Please contact Edna Stetzar at (302) 653-2880 ext. 101 or at Edna.Stetzar@state.de.us if the landowner will grant a site visit.

2. DNREC recommends that the developer/landowner contact the Delaware Native Plant Society to initiate a plant rescue. Selected plants from the site of disturbance will be collected by Society members and transplanted to the Society's nursery. Plants will then be used in restoration projects and/or sold at the Society's annual native plant sale. This can be done at no expense or liability to the developer/landowner." Please contact Eric Zuelke at ezuelke@juno.com

### **Wildlife Habitat Preservation**

A forest comprised primarily of planted pines is not typically as biologically diverse as a forest with more a heterogeneous mix of trees; however, there are species of concern that utilize this forest type. In addition, clearing for development will impact wildlife that utilizes this forest for foraging, shelter, and breeding.

Cumulative wildlife habitat loss throughout the State is of utmost concern to the Division of Fish and Wildlife, which is responsible for conserving and managing the State's wildlife (see [www.fw.delaware.gov](http://www.fw.delaware.gov) and the Delaware Code, Title 7). Because of an overall lack of habitat protection, we have to rely on applicants and/or the entity that approves the project (i.e. counties and municipalities) to consider implementing measures that will aide in habitat loss reduction.

1. This site is entirely forested, so the optimal way to reduce forest loss would be to consider preservation or downsize the project. If preservation is an option, there are incentive-based programs for wildlife management available to private landowners, some of which are through our agency. Shelly Tovell of the Landowner Incentive Program can be contacted at (302) 735-3600 if the landowner(s) is interested in more information.
2. To reduce impacts to nesting birds and other wildlife species that utilize forests for breeding, we recommend that clearing not occur April 1st to July 31st. This clearing recommendation would only protect those species during one breeding season; once trees are cleared the result is an overall loss of habitat.
3. Explore green technologies and alternatives to clearing trees for stormwater ponds.

### **Nuisance Waterfowl**

Wet ponds created for stormwater management purposes and the golf course may attract resident Canada geese and mute swans that will create a nuisance for community residents. High concentrations of waterfowl in ponds create water-quality problems, leave droppings on lawn and paved areas and can become aggressive during the nesting season. Short manicured lawns around ponds, like those typically found on golf courses,

provide an attractive habitat for these species. We recommend native plantings, including tall grasses, wildflowers, shrubs, and trees at the edge and within an adequate buffer (15-30 feet in width) around the ponds (planted in accordance with the Sediment and Stormwater Plan approval agency requirements). When the view of the surrounding area from the pond is blocked, geese can't scan for predators and are less likely to reside and nest in the area of the pond.

At this time, we do not recommend using monofilament grids due to the potential for birds and other wildlife to become entangled if the grids are not properly installed and maintained. In addition, the on-going maintenance (removing entangled trash, etc.) may become a burden to the homeowners association or land manager.

The Division of Fish and Wildlife does not provide goose control services, and if problems arise, residents or the home-owners association will have to accept the burden of dealing with these species (e.g., permit applications, costs, securing services of certified wildlife professionals). Solutions can be costly and labor intensive; however, with a reduction in the number of ponds, proper landscaping, monitoring, and other techniques, geese problems can be minimized.

### **Air Quality**

Housing developments may unnecessarily emit, or cause to be emitted, significant amounts of air contaminants into Delaware's air, which will negatively impact public health, safety and welfare. These negative impacts are attributable to:

- Emissions that form ozone and fine particulate matter; two pollutants relative to which Delaware currently violates federal health-based air quality standards,
- The emission of greenhouse gases which are associated with climate change, and
- The emission of air toxics.

Air emissions generated from housing developments include emissions from:

- Area sources like painting, lawn and garden equipment and the use of consumer products like roof coatings and roof primers.
- The generation of electricity needed to support the homes in your development, and
- Car and truck activity associated with the homes in your new development.

These three air emissions components (i.e., area, electric power generation, and mobile sources) are quantified below, based on a per household/residential unit emission factor that was developed using 2002 Delaware data. These emissions in the table represent the actual impact the Northview at Wild Pine Country Club development may have.

Emissions Attributable to Northview at Wild Pine Country Club Subdivision (Tons per Year)

	Volatile Organic Compounds (VOC)	Nitrogen Oxides (NO <sub>x</sub> )	Sulfur Dioxide (SO <sub>2</sub> )	Fine Particulate Matter (PM <sub>2.5</sub> )	Carbon Dioxide (CO <sub>2</sub> )
Direct Residential	5.8	0.6	0.5	0.7	23.6
Electrical Power Generation	ND*	2.3	8.0	ND*	1,183.3
Mobile	16.6	13.7	8.8	0.8	1,206.9
<b>Total</b>	22.4	16.6	17.3	1.5	2,413.8

(\*) Indicates data is not available.

Note that emissions associated with the actual construction of the subdivision, including automobile and truck traffic from working in, or delivering products to the site, as well as site preparation, earth moving activities, road paving and other miscellaneous air emissions, are not reflected in the table above.

*Recommendations:*

The applicant shall comply with all applicable Delaware air quality regulations. These regulations include:

<b>Regulation 6</b> - Particulate Emissions from Construction and Materials Handling	<ul style="list-style-type: none"> <li>• <b>Using dust suppressants and measures to prevent transport of dust off-site from material stockpile, material movement and use of unpaved roads.</b></li> <li>• <b>Using covers on trucks that transport material to and from site to prevent visible emissions.</b></li> </ul>
<b>Regulation 1113</b> – Open Burning	<ul style="list-style-type: none"> <li>• <b>Prohibiting open burns statewide during the Ozone Season from May 1-Sept. 30 each year.</b></li> <li>• <b>Prohibiting the burning of land clearing debris.</b></li> <li>• <b>Prohibiting the burning of trash or building materials/debris.</b></li> </ul>
<b>Regulation 1145</b> – Excessive Idling of Heavy Duty Vehicles	<ul style="list-style-type: none"> <li>• <b>Restricting idling time for trucks and buses having a gross vehicle weight of over 8,500 pounds to no more than three minutes.</b></li> </ul>

Additional measures may be taken to substantially reduce the air emissions identified above. These measures include:

- **Constructing only energy efficient homes.** Energy Star qualified homes are up to 30% more energy efficient than typical homes. These savings come from building envelope upgrades, high performance windows, controlled air infiltration, upgraded heating and air conditioning systems, tight duct systems and upgraded water-heating equipment. Every percentage of increased energy efficiency translates into a percent reduction in pollution. The Energy Star Program is excellent way to save on energy costs and reduce air pollution.

- **Offering geothermal and/or photo voltaic energy options.** These systems can significantly reduce emissions from electrical generation, and from the use of oil or gas heating equipment.
- **Providing tie-ins to the nearest bike paths and links to any nearby mass transport system.** These measures can significantly reduce mobile source emissions.
- **Funding a lawnmower exchange program.** New lawn and garden equipment emits significantly less than equipment as little as 7 years old, and may significantly reduce emissions from this new development. The builder could fund such a program for the new occupants.

Additionally, the following measures will reduce emissions associated with the actual construction phase of the development:

- **Using retrofitted diesel engines during construction.** This includes equipment that are on-site as well as equipment used to transport materials to and from site.
- **Using pre-painted/pre-coated flooring, cabinets, fencing, etc.** These measures can significantly reduce the emission of VOCs from typical architectural coating operations.
- **Planting trees at residential units and in vegetative buffer areas.** Trees reduce emissions by trapping dust particles and by replenishing oxygen. Trees also reduce energy emissions by cooling during the summer and by providing wind breaks in the winter, whereby reducing air conditioning needs by up to 30 percent and saving 20 to 50 percent on fuel costs.

This is a partial list, and there are additional things that can be done to reduce the impact of the development on air quality. The applicant should submit a plan to the DNREC Air Quality Management Section which address the above listed measures, and that details all of the specific emission mitigation measures that will be incorporated into the Northview at Wild Pine Country Club development. Air Quality Management Section points of contact are Phil Wheeler and Deanna Morozowich, and they may be reached at (302) 739-9402.

**State Fire Marshal's Office – Contact: Duane Fox 856-5298**

These comments are intended for informational use only and do not constitute any type of approval from the Delaware State Fire Marshal's Office. At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Where a water distribution system is proposed for 1-family and 2-family dwellings, it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

b. **Accessibility:**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from the main thoroughfare must be constructed so fire department apparatus may negotiate it. If a “center island” is placed at an entrance into the subdivision, it shall be arranged in such a manner that it will not adversely affect quick and unimpeded travel of fire apparatus into the subdivision.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

c. **Gas Piping and System Information:**

- Provide type of fuel proposed, and show locations of bulk containers on plan.

d. **Required Notes:**

- Provide a note on the final plans submitted for review to read “ All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads

Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: [www.statefiremarshal.delaware.gov](http://www.statefiremarshal.delaware.gov), technical services link, plan review, applications or brochures.

**Department of Agriculture - Contact: Scott Blaier 739-4811**

The proposed development is currently in an area designated as Investment Level 4 under the current *Strategies for State Policies and Spending*. The *Strategies* do not support this type of isolated development in this area. The intent of this plan is to preserve the agricultural lands, forestlands, recreational uses, and open spaces that are preferred uses in Level 4 areas. The Department of Agriculture opposes development which conflicts with the preferred land uses, making it more difficult for agriculture and forestry to succeed, and increases the cost to the public for services and facilities.

Section 1. Chapter 99, Code of Sussex Section 99-6 may apply to this subdivision. The applicant should verify the applicability of this provision with Sussex County. This Section of the Code states:

G. Agricultural Use Protections.

(1) Normal agricultural uses and activities conducted in a lawful manner are preferred. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land uses adjacent to land used primarily for agricultural purposes shall be subject to the following restrictions:

(a) For any new subdivision development located in whole or in part within three hundred (300) feet of the boundary of land used primarily for agricultural purposes, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

“This property is located in the vicinity of land used primarily for agricultural purposes on which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities.”

(b) For any new subdivision development located in whole or in part within fifty (50) feet of the boundary of land used primarily for agricultural purposes no improvement requiring and occupancy approval for a residential type use shall be constructed within fifty (50) feet of the boundary of land used primarily for agricultural purposes.



The Delaware Department of Agriculture supports growth which expands and builds on existing urban areas and growth zones in approved State, county and local plans. Where additional land preservation can occur through the use of transfer of development rights, and other land use measures, we will support these efforts and work with developers to implement these measures. If this project is approved we will work with the developers to minimize impacts to the agricultural and forestry industries.

### *Right Tree for the Right Place*

The Delaware Department of Agriculture Forest Service encourages the developer to use the “Right Tree for the Right Place” for any design considerations. This concept allows for the proper placement of trees to increase property values in upwards of 25% of appraised value and will reduce heating and cooling costs on average by 20 to 35 dollars per month. In addition, a landscape design that encompasses this approach will avoid future maintenance cost to the property owner and ensure a lasting forest resource.

### *Do Not Plant List*

Due to the high risk of mortality from insects and disease, the Delaware Forest Service does not recommend planting any of the following species:

Callery Pear  
Leyland Cypress  
Red Oak (except for Willow Oak)  
Ash Trees

Please contact the Delaware Forest Service for more information at (302) 698-4500.

### *Native Landscapes*

The Delaware Department of Agriculture and the Delaware Forest Service encourages the developer to use native trees and shrubs to buffer the property from the adjacent land-use activities near this site. A properly designed forested buffer can create wildlife habitat corridors and improve air quality to the area by removing six to eight tons of carbon dioxide annually and will clean our rivers and creeks of storm-water run-off pollutants. To learn more about acceptable native trees and how to avoid plants considered invasive to our local landscapes, please contact the Delaware Department of Agriculture Plant Industry Section at (302) 698-4500.

### **Public Service Commission - Contact: Andrea Maucher 739-4247**

Any expansion of natural gas or installation of a closed propane system must fall within Pipeline Safety guidelines. Contact: Malak Michael at (302) 739-4247.

**Delaware Economic Development Office – Contact: Jeff Stone 672-6849**

No comments received.

**Delaware Division of Public Health- Health Promotion Bureau- Contact: Michelle Eichinger (302) 744-1011**

Ensuring that new residential and commercial development incorporates pedestrian- and bicycle-friendly features allows people to travel by foot or by bicycle and promotes physical activity as part of daily routines. Regular physical activity offers a number of health benefits, including maintenance of weight and prevention of heart disease, type 2 diabetes and other chronic diseases.<sup>1</sup> Research shows that incorporating physical activity into daily routines has the potential to be a more effective and sustainable public health strategy than structured exercise programs.<sup>2</sup> This is particularly important considering about 65% of adult Delawareans are either overweight or obese.<sup>3</sup> This current obesity crisis is also affecting children. Approximately 37% of Delaware's children are overweight or obese<sup>4</sup>, which places them at risk for a range of health consequences that include abnormal cholesterol, high blood pressure, type 2 diabetes, asthma, depression and anxiety.<sup>1</sup>

In Delaware, as in other states across the nation, certain patterns of land use can act as a barrier to physical activity and healthy eating for children and adults alike. Examples of such barriers include neighborhoods constructed without sidewalks or parks and shopping centers with full-service grocery stores situated too far from residential areas to allow for walking or biking between them.

This proposed development is in a Level 3 area. Developing is such an area is consistent with the *Strategies for State Policies and Spending*. DPH is committed to the *Strategies* and therefore, does support development in the proposed area.

DPH supports new development in and around existing towns and municipalities where compact and mixed land use patterns facilitate physical activity. As a way to promote physical activity and access to healthy foods, we recommend that the following amenities be included in Northview at Wild Pine Country Club plan:

**Amenities to encourage active transportation**

- Ensure that there are sidewalks, crosswalks and walking/bicycling paths connecting to the proposed clubhouse, ponds, and other amenities.
- Designate bike paths to supplement the sidewalks so that residents can travel by foot or by bicycle to the plan's recreational amenities. In addition, install bike racks in convenient locations within the development.

### **Amenities to encourage recreation**

- Designate open space for active recreation for the residents in this community. Consider including a picnic area, as well as, tennis courts, basketball courts, shuffleboard, horseshoe areas, or bocce courts.

### **Increase opportunities for healthy eating**

- Consider including a community garden in an area close to the clubhouse. Community gardens not only provide opportunities for community engagement and recreation, but they also provide access to fresh produce and, as well as an opportunity for physical activity.

<sup>1</sup> Nemours Health and Prevention Services (2005). *Delaware Children's Health Chartbook*, Newark, DE.

<sup>2</sup> Active Living by Design. *Transportation Fact Sheet*. Retrieved May 17, 2007, from [http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation\\_Factsheet.pdf](http://www.activelivingbydesign.org/fileadmin/template/documents/factsheets/Transportation_Factsheet.pdf).

<sup>3</sup> Delaware Health and Social Services (2008), *Division of Public Health, Behavioral Risk Factor Surveillance System (BRFSS), 1990-2007*.

<sup>4</sup> Nemours Health and Prevention Services (2007). *2006 Delaware Survey of Children's Health Descriptive Statistics Summary, Volume 1*.

### **Delaware State Housing Authority – Contact Vicki Powers 739-4263**

This proposal is for a site plan review of 308 residential units on 188 acres, located north of Route 54, east of Route 504, west of Delmar. According to the *State Strategies Map*, the proposal is located in an Investment Level 3 area. DSHA supports this proposal because residents will have proximity to existing services, markets, and employment opportunities. Additionally, we support the fact that this proposal targets first time homebuyers. According to the most recent real estate data collected by DSHA, the average home price in Sussex County is \$260,000. However, families earning respectively 100% of Sussex County's median income only qualify for mortgages of \$164,791, thus creating an affordability gap of \$95,209. The provision of units within reach of families earning at least 100% of Sussex County's median income will ensure housing that is affordable to first time homebuyers.

### **Department of Education – Contact: John Marinucci 735-4055**

DOE recognizes that this development project request is in level 4 of the State Strategies for Policies and Spending and as such, DOE does not support the approval of projects in level 4 of the State Strategies for Policies and Spending.

This proposed development is within the Delmar School District boundaries. DOE offers the following comments on behalf of the Delmar School District.

1. Using the DOE standard formula, this development will generate an estimated 154 students.

2. DOE records indicate that the Delmar School Districts' *secondary schools are at or beyond 100% of current capacity* based on September 30, 2008 secondary enrollment.
3. Please note that the elementary students residing within the Delmar School District Attendance Boundaries attend elementary school in Maryland.
4. The Delmar School District **does NOT** have adequate student capacity to accommodate the additional Secondary students likely to be generated from this development.
5. The developer is strongly encouraged to contact the Delmar School District Administration to address the issue of school over-crowding that this development will exacerbate. Further, it is strongly recommended that the developer also address the issue of elementary school capacity with the Maryland County school district that serves the elementary students in this attendance boundary.
6. DOE requests the developer work with the Delmar School District transportation department to establish developer supplied bus stop shelter ROW and shelter structures, interspersed throughout the development as determined and recommended by the school district.

**Sussex County – Contact: Richard Kautz 855-7878**

The proposed RPC development is not within a Sussex County designated Growth Area according to the recently adopted and certified Comprehensive Plan.

The Sussex County Engineer Comments:

The project proposes to develop using a private central community wastewater system. We recommend that the wastewater system be operated under a long-term contract with a capable wastewater utility. In addition, we recommend they have a wastewater utility provider prior to approving the project. Sussex County requires design and construction of the collection and transmission system to meet Sussex County sewer standards and specifications. A review and approval of the treatment and disposal system by the Sussex County Engineering Department is also required and plan review fees may apply. Disposal fields should not be counted as open space. Wastewater disposal fields should be clearly identified on recorded plots.

Revised 12/19/08 to add comments regarding the Final Remediation Plan: The Sussex County Engineering Department is concerned that dewatering wells needed for the installation of pipelines and the installation of the actual pipelines will require special consideration in light of the parcels (504.07 and 504.03) use as a barrow pit and waste disposal site. Sussex County will provide additional comments during the concept plan and construction plan review process.

The proposed project is in the Western Sussex Planning Area # 4, but is not in an area where Sussex County expects to provide sewer service in the foreseeable future. If Sussex County ever provides sewer service and the project has a CPCN, it is recommended that the treatment system be abandoned and a direct connection made to

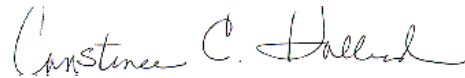
the County system at the developers and/or owners expense. If Sussex County ever provides sewer service and the project does not have a CPCN, it is required that the treatment system be abandoned and a direct connection made to the County system at the developers and/or owners expense.

Sussex County recently adopted new road standards. The standard becomes effective January 1, 2009 and will apply to this project.

**Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.**

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,

A handwritten signature in cursive script, reading "Constance C. Holland".

Constance C. Holland, AICP  
Director, Office of State Planning

CC: Sussex County